

-10-

**REMARKS**

This amendment is responsive to the Office Actions of October 3, 2005 and December 29, 2005. Reconsideration and allowance of claims 1-6 are requested.

**Notice of Non-Compliant Amendment**

This Substitute Amendment B is filed without the inserted paragraphs on pages 4 and 6 of the present amendment being underlined. With the removal of this underlining, it is submitted that this amendment is fully compliant with the Patent Office requirements.

**The Office Action**

Claims 1-3, 5, and 6 stand rejected under 35 U.S.C. § 102 as being anticipated by Danielsson (US 6,275,561) or Grass (US 2001/0038678).

Claim 4 stands rejected under 35 U.S.C. § 103 as being obvious over Danielsson or Grass.

**The References of Record**

The Danielsson and Grass references, like the Proksa (US 6,285,733) reference discussed in the body of the present application all relate to a cone-beam reconstruction technique. Each of these references starts with cone-beam data, which is rebinned into a series of fan-beams, each lying on one of a plurality of parallel planes as shown in Figure 4 of the present application. Due to the converging or diverging rays of the fan beams of each of the Figure 4 data sets, the prior art references use reconstruction techniques which are described in detail in the prior art references to generate precise and accurate CT images.

**The Present Application**

The present application is concerned with generating fluoroscopic images. Because fluoroscopic images must be generated substantially real-time, reconstruction speed is an issue. In order to accelerate the reconstruction, the present application proposes to treat the fan-shaped rays within each fan plane as parallel rays. That is, as shown in Figure 6, the actual data was collected along the rays shown in solid lines.

-11-

The present application treats the data as if it were collected along the dashed line parallel rays. With parallel rays, the reconstruction can proceed very quickly, sufficiently quickly that a fluoroscopic type continuously updated display is achieved.

**The Claims Distinguish Patentably  
Over The References of Record**

**Claim 1** calls for treating the measuring values which represent the fan-beams of rays in the fan-beam planes as if they represented parallel rays. By contrast, the applied references teach that the data values representing the fan-beams of rays should be treated as fan-beams.

Because the references of record teach against treating the data which represents fan-beams as parallel rays, it is submitted that **claim 1 and claims 2-4 dependent therefrom** are not anticipated by nor patentable over the references of record.

**Claim 5** calls for treating the fan-beam rays as parallel rays while reconstructing at least one CT image. By contrast, the references of record teach that the fan-beam rays should be treated as fan-beam rays. Accordingly, it is submitted that **claim 5** is not anticipated by the references of record.

**Claim 6** calls for rebinning the data into fan-beams disposed in parallel fan-beam planes, the fan-beam planes of each group being perpendicular to a group plane. Claim 6 further calls for reconstructing the measuring data by treating the measuring data as representing rays extending perpendicular to its group plane to form a continuously updated fluoroscopic CT image. By contrast, the references of record teach that this fan-beam data should be treated as fan-beam (converging or diverging) rays. Accordingly, it is submitted that **claim 6** is not anticipated by the references of record.

**Substitute Drawing Sheets**

The applicants enclose a substitute sheet 1 of the Drawings, in which blocks 7 and 10 have been labeled "control" and "image proc.", respectively.

-12-

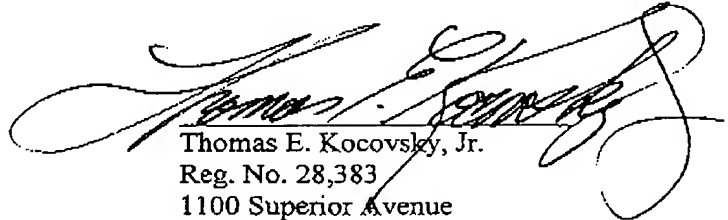
**CONCLUSION**

For the reasons set forth above, it is submitted that claims 1-6 are not anticipated by and distinguish patentably over the references of record. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this cases, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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